

What is claimed is:

1     1.     An electronic purse comprising:  
2             IC card connecting means for connecting an IC card storing electronic  
3     money information;  
4             IC card reading and writing means for reading or writing information  
5     from or into the IC card connected to said IC card connecting means;  
6             control means for controlling reading and writing of electronic money  
7     information in the IC card; and  
8             an external device connecting terminal for sending and receiving  
9     electronic money information to and from an external device;  
10            a switching means for making it possible to receive and send electronic  
11    money information between said IC card reading and writing means and said  
12    external device connecting terminal;  
13            an external device detecting means for detecting a response from the  
14    external device connected to said external device connecting terminal; and  
15            wherein when said external device detecting means detects connection  
16    of the external device, said control means sets said switching means so that the  
17    electronic money information in said IC card can pass between said external  
18    device connecting terminal and said IC card reading and writing means, making  
19    it possible to send and receive the electronic money information between said  
20    external device and said IC card.

1     2.     The electronic purse according to Claim 1, wherein:  
2             said purse is provided with at least two sets of IC card connecting  
3     means and IC card reading and writing means, and further comprises a

4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device;

7       said control means can set said switching means based on a selection  
8 by said remittance direction selecting means; and

9       when said external device detecting means detects connection of the  
10 external device, setting of said switching means can be selected, by said  
11 remittance direction selecting means, so that the electronic money information  
12 of said IC card can pass between said external device connecting terminal and  
13 said IC card reading and writing means.

1   3.       The electronic purse according to Claim 1, wherein:

2       said purse is provided with at least two sets of IC card connecting  
3 means and IC card reading and writing means, and further comprises a  
4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device, to set said  
7 switching means, and a card detecting means for detecting existence or non-  
8 existence of respective IC cards corresponding to said IC card connecting means ;  
9 and

10       when one connected IC card is detected by said card detecting means,  
11 said control means sets said switching means so that said direction of  
12 remittance is one for sending and receiving electronic money information  
13 between said IC card and the external device.

1   4.       The electronic purse according to Claim 1, wherein:

2           said purse is provided with at least two sets of IC card connecting  
3 means and IC card reading and writing means, and further comprises a  
4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device, to set said  
7 switching means, and a card detecting means for detecting existence or non-  
8 existence of respective IC cards corresponding to said IC card connecting means ;  
9 and

10           when two connected IC cards are detected by said card detecting means,  
11 said control means sets said switching means so that said direction of  
12 remittance is one for sending and receiving electronic money information  
13 between said two IC cards.

1   5.       The electronic purse according to Claim 1, wherein:

2           said electronic purse further comprises a transaction button for giving  
3 instructions for sending and receiving electronic money information to and from  
4 said IC card; and

5           said control means detects that said transaction button is operated, and  
6 when said external device detecting means detects, that an external device is  
7 connected, said control means sets said switching means based on these results  
8 of detection, so that electronic money information can be sent and received  
9 between said external device and said IC card.

1   6.       The electronic purse according to Claim 5, wherein:

2           said purse is provided with at least two sets of IC card connecting  
3 means and IC card reading and writing means, and further comprises a

4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device;

7       said control means can set said switching means based on a selection  
8 by said remittance direction selecting means; and

9       when said external device detecting means detects connection of the  
10 external device, setting of said switching means can be selected, by said  
11 remittance direction selecting means, so that the electronic money information  
12 of said IC card can pass between said external device connecting terminal and  
13 said IC card reading and writing means.

1   7.       The electronic purse according to Claim 5, wherein:

2       said purse is provided with at least two sets of IC card connecting  
3 means and IC card reading and writing means, and further comprises a  
4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device, to set said  
7 switching means, and a card detecting means for detecting existence or non-  
8 existence of respective IC cards corresponding to said IC card connecting means;  
9 and

10       when one connected IC card is detected by said card detecting means,  
11 said control means sets said switching means so that said direction of  
12 remittance is one for sending and receiving electronic money information  
13 between said IC card and the external device.

1   8.       The electronic purse according to Claim 5, wherein:

2           said purse is provided with at least two sets of IC card connecting  
3 means and IC card reading and writing means, and further comprises a  
4 remittance direction selecting means which can select, as a direction of  
5 transferring electronic money information, either transfer between the two IC  
6 cards or transfer between one IC card and the external device, to set said  
7 switching means, and a card detecting means for detecting existence or non-  
8 existence of respective IC cards corresponding to said IC card connecting means ;  
9 and

10           when two connected IC cards are detected by said card detecting means,  
11 said control means sets said switching means so that said direction of  
12 remittance is one for sending and receiving electronic money information  
13 between said two IC cards.

1    9.       An electronic purse comprising:

2           IC card connecting means for connecting an IC card storing electronic  
3 money information;

4           IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;

6           control means for controlling reading and writing of electronic money  
7 information in the IC card;

8           an external device connecting terminal for sending and receiving  
9 electronic money information to and from an external device; and

10          wherein, before sending electronic money information through said  
11 external device connecting terminal in response to a request signal inputted  
12 through the external device connecting terminal, information regarding a  
13 construction of said electronic purse is sent.

1 10. An electronic purse comprising:  
2 IC card connecting means for connecting an IC card storing electronic  
3 money information;  
4 IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;  
6 control means for controlling reading and writing of electronic money  
7 information in the IC card; and  
8 an external device connecting terminal for sending and receiving  
9 electronic money information to and from an external device;  
10 wherein said electronic purse further comprises a storage medium  
11 which stores information regarding a construction of the electronic purse, and is  
12 provided separately from said control means; and  
13 before sending electronic money information through said external  
14 device connecting terminal, said information regarding the construction of said  
15 electronic purse, which is stored in said storage medium, is sent.

1 11. An electronic purse comprising:  
2 IC card connecting means for connecting an IC card storing electronic  
3 money information;  
4 IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;  
6 control means for controlling reading and writing of electronic money  
7 information in the IC card; and  
8 an external device connecting terminal for sending and receiving  
9 electronic money information to and from an external device;

10            wherein, said electronic purse further comprises a lump-sum  
11 remittance button for giving instructions for lump-sum sending of electronic  
12 money information stored in the IC card, and a lump-sum remittance button  
13 operation detecting means for detecting an operation signal indicating that this  
14 button has been operated; and

15            when the lump-sum remittance button is operated, said control means  
16 performs control processing so that all the electronic money information stored  
17 in said IC card or a user-set value is sent in a lump sum to the external device  
18 connected to said external device connecting terminal.

1    12.      An electronic purse comprising:

2            IC card connecting means for connecting an IC card storing electronic  
3 money information;

4            IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;

6            control means for controlling reading and writing of electronic money  
7 information in the IC card; and

8            an external device connecting terminal for sending and receiving  
9 electronic money information to and from an external device;

10           wherein, said electronic purse further comprises a lump-sum drawing  
11 button for giving instructions for receiving all the electronic money information  
12 stored in the external device connected to the external device connecting  
13 terminal; and

14           when said lump-sum drawing button is operated, said control means  
15 performs control processing so that all the electronic money information which is  
16 stored in and received from said external device or a user-set value is received in

17 a lump sum by said IC card through said external device connecting terminal.

1 13. The electronic purse according to Claim 12, wherein:

2 when said lump-sum drawing button is operated, said control means  
3 receives a value of the electronic money information stored in said the external  
4 device connected to said external device connecting terminal, to display it as a  
5 balance on a display unit; and

6 when said lump-sum drawing button is operated once again, said  
7 control means performs control processing so that all the electronic money  
8 information displayed as the balance is received by said IC card through said  
9 external device connecting terminal.

1 14. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic  
3 money information;

4 IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;

6 control means for controlling reading and writing of electronic money  
7 information in the IC card;

8 an external device connecting terminal for sending and receiving  
9 electronic money information to and from an external device;

10 a transaction button for giving instructions for sending and receiving  
11 electronic money information to and from said IC card;

12 numerical input means for inputting a value of electronic money  
13 information to be handled; and

14 an instruction decision button for inputting decision of instructions;

15            wherein, said electronic purse further comprises a remittance direction  
16   detecting means for detecting electronic money information transfer direction  
17   data inputted from the external device through the external device connecting  
18   terminal, and a transfer direction setting means for setting a direction of  
19   transferring electronic money information in relation to said IC card; and  
20            when, after operation of said transaction button is detected, said  
21   instruction decision button is operated while said numerical input means is not  
22   operated, said control means sets said transfer direction setting means in  
23   accordance with electronic money information transfer direction data detected  
24   by said remittance direction detecting means.

1   15.      An electronic purse comprising:  
2            IC card connecting means for connecting an IC card storing electronic  
3   money information;  
4            IC card reading and writing means for reading or writing information  
5   from or into the IC card connected to said IC card connecting means;  
6            a modem for sending and receiving electronic money information to and  
7   from an external device through a communication line;  
8            a transaction button for giving instructions for sending and receiving  
9   electronic money information to and from the IC card;  
10           telephone receiver means for outputting voice information received  
11   through said communication line; and  
12           line switching means for switching the communication line to the  
13   modem or to the telephone receiver means;  
14           wherein, said electronic purse further comprises a voice information  
15   storage means for storing voice information, and a voice connecting means for

16 supplying the voice information stored in said voice information storage means  
17 to said telephone receiver means;

18 when said transaction button is operated, the communication line is  
19 connected to the modem while the voice information is supplied to said  
20 telephone receiver means; and

21 while electronic money information of said IC card is being sent or  
22 received to or from the external device through the modem and the  
23 communication line, said voice information such as a piece of music or a  
24 message is outputted through said telephone receiver means.

1 16. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic  
3 money information;

4 IC card reading and writing means for reading or writing information  
5 from or into the IC card connected to said IC card connecting means;

6 a modem for sending and receiving electronic money information to and  
7 from an external device through a communication line;

8 a transaction button for giving instructions for sending and receiving  
9 electronic money information to and from the IC card; and

10 a telephone transmitter-receiver means for talking by means of voice  
11 information sent and received through the communication line, and a line  
12 superposition means for sending and receiving signals of the modem and the  
13 telephone transmitter-receiver means in a superposed manner to and from the  
14 communication line;

15 wherein when said transaction button is operated, it is made possible to  
16 send and receive voice information such as a piece of music or a message

17 through said line superposition means, and to input and output the voice  
18 information through said telephone transmitter-receiver means, while electronic  
19 money information is sent or received to and from the external device through  
20 said line superposition means and said modem.